

SECRET

14 October 1970

Impact of Metro Subway System

5X1 Construction of a Metro Subway Tube, within 38 feet of
[] is scheduled for 1974 through 1976 with passenger
service to begin in 1978. During the period of construction two
conditions may be created which could disrupt the operation of
sensitive equipment, thereby greatly reducing the ability of
5X1 [] to perform it's mission. These conditions are
(1) dewatering operations for tunnel construction which could
result in building settlement, thereby requiring underpinning
for building footings, and (2) excessive vibration which would
affect sensitive equipment.

DECLASS REVIEW by NIMA/DOD

SECRET

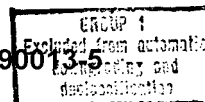
GROUP 1
Excluded from automatic
downgrading and
declassification

~~SECRET~~

14 October 1970

Power Augmentation Requirements

Electrical power brownouts as experienced in the Washington metropolitan area this past summer are expected to continue through the next several years. In addition, electrical power blackouts such as those experienced by several metropolitan areas, can also occur. On occasion [] has been forced to reduce power requirements by discontinuing elevator service, reducing air conditioning supply, etc., during power brownouts. The building would be inoperable during power blackouts because of the lack of an emergency power supply. Emergency power can be provided at [] for approximately \$1,000,000. However, if [] is relocated to the Headquarters compound, sufficient emergency power is available for this facility.

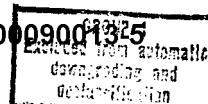
~~SECRET~~

SECRET

14 October 1970

Parking^{and} Neighborhood

There are 1,650 employees working in [] and there are only 625 Navy Yard parking spaces available for them. Consequently, there are several hundred NPIC employees who must park each day on the streets of Southeast Washington. This is a deprived area and there are frequent acts of vandalism directed against the automobiles left on the streets. There were five such incidents in September 1970. Further, employees are frequently accosted while walking from their automobiles to the Building, even during daylight hours. Any employee who is required to work after hours is instructed to bring his automobile into the main compound at 4:15 p.m., which is the end of the official work day and the hour of departure for most employees. There is little likelihood of any improvement in the character of the neighborhood in the foreseeable future.

SECRET

~~SECRET~~

14 October 1970

Vibration

Probably the most significant single consideration is the presence in [] of excessive vibrations and the probability that these will get worse. Many of the types of sensitive high magnification equipment used in the building are vulnerable to the effects of vibration. It has been determined that the limit of vibration for light tables is 1 micrometer displacement at approximately 20 hertz frequency. This limit is now exceeded in some areas of the building and it is being approached in others. Certain fixed equipment can be mounted on special bases at very high cost. For example, site preparation for the high-precision stereo comparator cost over [] However, there is no economically feasible method of reducing the vibration areas of the building where normal portable equipment such as light tables are used. As the R&D efforts produce more sophisticated equipment, vibrations will become a more critical factor. Relocation to a new building which is designed to minimize ambient vibrations would provide the proper environment for the full exploitation of the new equipment. This could not be done in []

~~SECRET~~